

REMARKS

In order to expedite issuance of claims which appear allowable in view of the rejections in the previous Office Action, Applicants have cancelled the previously rejected claims and added new claims.

Thus, claims 1, 3-6, and 8-25 were pending in the application. Claims 1, 3-6, and 8-25 are cancelled herein without prejudice to further prosecution in a related application. New claims 112-134 are added. Support for the new claims can be found throughout the specification, for example, at [0007] and [0008] of U.S. Publication No. 2004/0157292, and in the originally-filed claims.

After entry of this Amendment, claims 112-134 will be pending and are presented for examination.

I. 35 U.S.C. § 112, Second Paragraph – Definiteness

Claims 3-6 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for reciting the term “functional equivalents.”

As claims 3-6 have been cancelled, and the term “functional equivalents” does not appear in the new claims, Applicants submit that the rejection is now moot, and respectfully request withdrawal of this rejection.

II. 35 U.S.C. § 101 – Patentable Subject Matter

Claims 21-25 were rejected under 35 U.S.C. § 101 as allegedly encompassing non-statutory subject matter.

As claims 21-25 have been cancelled, and the new claims are directed to isolated nucleic acids, kits, recombinant vectors or transformed cells, Applicants submit that the rejection is now moot, and respectfully request withdrawal of this rejection.

III. 35 U.S.C. § 112, First Paragraph – Scope of Enablement

Claims 3-6 and 8-25 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the enablement requirement for “allelic variants,” “functional equivalents,” or polynucleotides “consisting essentially of” the specifically recited sequences.

As claims 3-6 and 8-25 have been cancelled, and none of the terms “allelic variants,” “functional equivalents” or “consisting essentially of” appear in the new claims, Applicants submit that the rejection is now moot, and respectfully request withdrawal of this rejection.

IV. 35 U.S.C. § 112, First Paragraph – Written Description

Claims 3-6 and 8-25 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement for “allelic variants,” “functional equivalents,” or polynucleotides “consisting essentially of” the specifically recited sequences.

As claims 3-6 and 8-25 have been cancelled, and none of the terms “allelic variants,” “functional equivalents” or “consisting essentially of” appear in the new claims, Applicants submit that the rejection is now moot, and respectfully request withdrawal of this rejection.

V. 35 U.S.C. § 102

Claims 1, 3-5, and 8 were rejected under 35 U.S.C. § 102(b) as anticipated in view of Hillier *et al.* (1997b, Accession No. AA416577.1) (“Hillier 1997b”).

Claims 1, 3-5, and 8 have been cancelled. As claims 3-6 and 8-25 have been cancelled, and the new claims are directed to isolated nucleic acids, kits, recombinant vectors or transformed cells including a sequence that is not disclosed in Hillier 1997b, Applicants respectfully submit that the rejections against claims 1, 3-5, and 8 under 35 U.S.C. § 102 are moot and should be withdrawn. New claims 112-134 are not anticipated by Hillier 1997b.

In particular, new claim 112 recites:

- 112. An isolated nucleic acid comprising:
 - (a) a nucleotide sequence encoding a CatSper1 protein of SEQ ID NO: 2; or
 - (b) a nucleotide sequence complementary to the nucleotide sequence of (a).

Hillier 1997b only discloses residues 1959 to 2343 of instant SEQ ID NO: 1. Therefore, Hillier 1997b does not anticipate claim 112 nor any of the instantly-claimed nucleic acids. In view of the new claims, Applicants respectfully request that the rejection under 35 U.S.C. § 102(b) be reconsidered and withdrawn.

CONCLUSION

In view of the amendments and arguments presented herein, Applicants believe that the outstanding objections and rejections have been overcome, and that the application is in condition for allowance.

If the Examiner believes that a telephonic interview would expedite the prosecution of the application, the Examiner is invited to telephone the undersigned to discuss any remaining issues.

A petition and authorization for the fee for a three-month extension of time is submitted herewith. Applicants believe that no other fee is due with this response. However, if any additional fee is due, or to credit any overpayment, please charge or credit our Deposit Account No. 08-0219, under Order No. 0110313.00135US3 from which the undersigned is authorized to draw.

Respectfully submitted,

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/Michael J. Twomey/
Michael J. Twomey
Registration No.: 38,349
Attorney for Applicants

Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, Massachusetts 02109
(617) 526-6000 (telephone)
(617) 526-5000 (facsimile)